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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,066

08/29/2005

Shen Ye

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EXAMINER

LEE, BENNY T

ART UNIT

PAPER NUMBER

2817

MAIL DATE

DELIVERY MODE

10/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/507,066	Applicant(s) YE, SHEN	
	Examiner Benny Lee	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,5,16-20; 12; 13,14 is/are allowed.
- 6) ☒ Claim(s) 1,2,6-8,10; 3; 11 is/are rejected.
- 7) ☒ Claim(s) 9 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5 August 2008 has been entered.

The disclosure is objected to because of the following informalities: In the replacement paragraph to the second paragraph of page 2, note that the status information for the cited co-pending application "09/699783" (e.g. "Petition to Revive Granted September 29, 2006") should be identified as --pending-- until such time that it's status changes. Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6-8; 3, 11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Tsukamoto et al.

Tsukamoto et al (e.g. Figs. 3A-3C) discloses a filter apparatus including a plurality of resonators comprising: a first resonator (e.g. 2a); a second resonator (e.g. 2b) disposed adjacent to and electrically coupled to the first resonator, where the first and second resonators are disposed in a common dielectric material or substrate (1) and have ends thereof which are not physically connected to each other (i.e. the ends of the first and second resonators terminate in

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open circuit surfaces of the dielectric material). Note that for the first resonator (2a), a first one of the ends of the resonator is of a greater diameter (i.e. first end) than the remainder of the resonator. Therefore, the first end of the first resonator (2a) is spaced by a coupling distance (i.e. characterized as a “primary coupling”, such as a capacitive coupling) from a first end of the second resonator (2b). Moreover, note that the first resonator and second resonator have opposite or “second” ends of the resonators that are spaced apart and coupled to each other (i.e. characterized as a “secondary coupling”, such as a capacitive coupling), where the second coupling is such that it is different from or not the same as the first coupling (i.e. by virtue of the first resonator (2a) being linear at the second end while the second resonator (2b) has a greater diameter at the second end, the distance of the respective couplings would be different). It should be noted that from the orientation of the closer coupled first ends, this determines the degree of the primary coupling independent of the secondary coupling.

With respect to claim 3, note that by virtue of the closer coupling of the first ends of the first and second resonators (2a, 2b), such a primary coupling provides a larger coupling interface relative to the lesser coupling interface at the second ends of the first and second resonators.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto et al in view of the Setsune et al patent abstract (of record).

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Note that Tsukamoto et al further discloses with respect to Fig. 10, a planar conductive layer filter embodiment of the invention. Moreover, it is disclosed that the planar filter of the Fig. 10 embodiment may take the form of any of the previously disclosed filters shown in Figs 2-9, as described at column 7, lines 41-44 (i.e. including the Figs. 3A-3C embodiment). Therefore, Tsukamoto et al (Fig. 10) discloses the claimed invention except for the resonators being a HTS material disposed on a substrate of a specific dielectric material.

As described previously, the Setsune et al abstract discloses planar resonators (e.g. see Fig. 3) made of a HTS material layer (3) of e.g. Bi-Sr-Ca-Cu-O disposed on an MgO substrate (1).

Accordingly, it would have been obvious in view of the references, taken as a whole, to have realized the planar resonators in Tsukamoto et al (i.e. the planar filter embodiment in Fig. 10 in conjunction with the specific resonator embodiment of Figs. 3A-3C) to have included a HTS material disposed on an MgO substrate, such as taught by Setsune et al. Such a modification would have been considered obvious since it would have imparted the advantageous benefit of low loss signal conductivity, taught by the HTS configuration in Setsune et al, to the planar resonator filters of Tsukamoto et al, thereby suggesting the obviousness of such a modification.

Applicant's arguments with respect to claims 1, 2, 6-10, 15; 4, 16-20; 11; 12 have been considered but are moot in view of the new grounds of rejection.

Claims 9, 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim.

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Claims 4, 5, 16-20; 12; 13, 14 are allowable over the prior art of record since none of the prior art references fairly teach or suggest first and second resonators being coupled by a coupling strip.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

**/BENNY LEE/
PRIMARY EXAMINER
ART UNIT 2817**

B. Lee